## ABSTRACT

There is provided a radar level gauge (13) using microwaves for measuring a level of a surface (16) of a product (12) in a tank (11), comprising an antenna (15) for transmitting microwaves to the surface and receiving microwaves reflected by the surface, a measurement circuitry feeding said antenna through a hollow wave guide and said wave guide including at least an antenna wave guide member (21), at one end couplable to the antenna (15) and at its other end having an opening in an intersection across the wave guide, wherein the radar level gauge further comprises: a dielectric barrier (25) extending along said intersection across the opening of said antenna wave guide member (21) for non-conductively separating said antenna wave guide member from the measurement circuitry, said dielectric barrier (25) having a first side facing the wave guide in a direction towards the antenna wave guide member (21) and said dielectric barrier (25) having a second side facing a direction substantially away from said antenna wave guide member. (Fig. 3).